

**Patent Claims**

- 1) A distribution device for communications and data technology,  
having at least one distribution board connection module, with the  
5 distribution board connection module having a housing in which  
externally accessible input and output contacts are arranged for  
connection of lines, cables or conductors,  
**characterized in that**  
the distribution device (1) has at least one further connection module  
10 (2), with the connection module (2) having at least one SDH/SONET  
transport interface (6) and outputs for electrical signals, with the  
outputs of the connection module (2) being connected to the inputs  
of the distribution board connection module (7), and with the  
connection module (2) having at least one converter for conversion  
15 of SDH/SONET transport signals to E1 signals, and vice versa.
- 2) The distribution device as claimed in claim 1, characterized in that  
the output contacts of the connection module (2) and the input  
contacts of the distribution board connection module (7) are in the  
20 form of multipole plug connectors (4, 11).
- 3) The distribution device as claimed in claim 1 or 2, characterized in  
that the connection module (2) has an external supply voltage  
connection (24).  
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- 4) The distribution device as claimed in one of the preceding claims,  
characterized in that the connection module (2) has an external  
interface for programming.
- 30 5) The distribution device as claimed in one of the preceding claims,  
characterized in that the connection module (2) has at least two plug  
connectors (4) as output contacts for at least two distribution board  
connection modules (7).

- 6) The distribution device as claimed in one of the preceding claims, characterized in that the connection module (2) and the distribution board connection module (7) have snap-action elements (27, 14) for latching onto round rods (3).
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- 7) The distribution device as claimed in one of the preceding claims, characterized in that the housing (16, 17) of the connection module (2) has heat sinks.
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- 8) The distribution device as claimed in claim 7, characterized in that the heat sinks are in the form of cooling ribs or cooling points.
- 9) The distribution device as claimed in one of the preceding claims, characterized in that the output contacts of the distribution board connection module (7) are in the form of insulation-displacement terminal contacts or coaxial plug connectors (8).
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- 10) The distribution device as claimed in one of the preceding claims, characterized in that the line drivers for the converter for the connection module (2) are arranged in the distribution board connection modules (7).
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- 11) The distribution device as claimed in claim 10, characterized in that the voltage for the line drivers is supplied via at least one pole of the multipole plug connector (11).
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- 12) The distribution device as claimed in one of claims 10 or 11, characterized in that the multipole plug connector (11) and/or the line drivers are/is arranged on a printed circuit board (10).
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- 13) The distribution device as claimed in one of claims 9 to 12, characterized in that the output contacts of the distribution board connection module (7) are in the form of an insulation-displacement terminal connecting strip (9).

- 14) The distribution device as claimed in claim 13, characterized in that the insulation-displacement terminal connecting strip (9) is connected to the printed circuit board (10) via fork contacts.
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- 15) The distribution device as claimed in one of the preceding claims, characterized in that the insulation-displacement terminal connecting strips (9) have associated conductor guidance elements (30).
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- 16) The distribution device as claimed in claim 15, characterized in that the conductor guidance element (30) has channels (32-34) at the sides, which lead to the end face (31) of the conductor guidance element (30).
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- 17) The distribution device as claimed in claim 16, characterized in that the channels (32-34) are arranged on both sides (35, 36) of the conductor guidance element (30).
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- 18) The distribution device as claimed in claim 17, characterized in that channels (33, 34) are arranged one above the other on one half of the end surface (31) of the conductor guidance element (30), with the upper and lower channels (33, 34) being routed on different sides (35, 36) of the conductor guidance element (30), and the channels (32) in the other half of the end surface (31) being routed on only one side (35), with the channels (32, 34) on the one side (35) being arranged one above the other for both halves of the end surface (31).
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- 19) A connection module (2) for a distribution device (1), having a housing (16, 17), an SDH/SONET transport interface (6) and an output for an electrical signal, with a converter for conversion of SDH/SONET transport signals to E1 signals, and vice versa, being arranged between the input and the output within the housing.
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- 20) The connection module as claimed in claim 19, characterized in that the converter is an STM1 board.
- 5 21) The connection module as claimed in claim 19 or 20, characterized in that the output contacts are in the form of at least one multipole plug connector (4).
- 10 22) The connection module as claimed in one of claims 19 to 21, characterized in that the connection module (2) has an external supply voltage connection (24).
- 15 23) The connection module as claimed in one of claims 19 to 22, characterized in that the connection module (2) has an external interface for programming.
- 20 24) The connection module as claimed in one of claims 19 to 23, characterized in that the connection module (2) has at least two plug connectors (4) as output contacts for at least two distribution board connection modules (7).
- 25 25) The connection module as claimed in one of claims 19 to 24, characterized in that the connection module (2) has snap-action elements (27) for latching onto round rods (3).
- 30 26) The connection module as claimed in one of claims 19 to 25, characterized in that the housing (16, 17) of the connection module (2) has heat sinks.
- 27) The connection module as claimed in claim 26, characterized in that the heat sinks are in the form of cooling ribs or cooling points.
- 28) A distribution board connection module for a distribution device for communications and data technology, comprising a housing in which externally accessible input and output contacts are arranged

for connection of lines, cables or conductors, with the input contacts being in the form of a multipole plug connector and the output contacts being in the form of insulation-displacement terminal contacts or coaxial plug connectors, with functional elements being arranged electrically between the input and output contacts in the housing,

characterized in that

the functional elements are in the form of line drivers for an STM1 board.

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- 29) The distribution board connection module as claimed in claim 28, characterized in that an external voltage supply for the line drivers can be connected via at least one pin of the multipole plug connector (11).